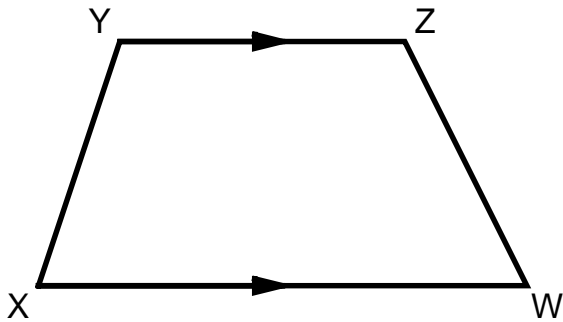


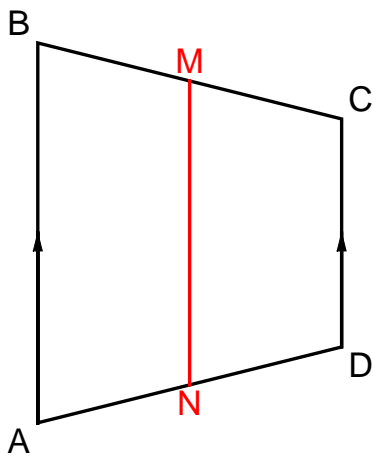
Worksheet 7.3: Trapezoids

Use the figure below to answer questions 1 and 2.



1. In trapezoid $XYZW$, $m\angle X = 80$ and $m\angle Z = 110$. Find the measures of $\angle Y$ and $\angle W$.
2. Suppose trapezoid $XYZW$ is isosceles and that $m\angle X = 2m$. Find the measures of $\angle Y$, $\angle Z$, and $\angle W$ in terms of m .

\overline{MN} is the median of trapezoid $ABCD$.



3. If $BM = 6$ and $AN = 8$, find the lengths of MC and AD .
4. If $BA = 12$ and $CD = 8$, find the length of MN .
5. If $CD = 7$ and $MN = 10$, find the length of BA .

6. If $BA = 16j$ and $MN = 13j$, find the length of CD in terms of j .

Use the figure above to complete the following table.

	BA	MN	CD
7.	14		10
8.	16	10	
9.	24		12
10.		$5x$	$3x$

Each figure below shows a trapezoid and its median. Find the value of x .

11.

$2x + 1$

$2x + 4$

$3x + 2$

12.

20

$2 + 4$

8

13.

$7x$

6

$3x + 10$

14. Write a proof in two-column form.

Given: Parallelogram ABCD; $\angle 1 \cong \angle 2$

Prove: ADEB is an isosceles trapezoid.

